CIVIL DEFENCE
EMERGENCY BROADCASTING TRANSMITTERS

The Complete Station

In Canada plans are in hand for an emergency broadcasting system and as a first step ten transportable broadcasting stations have been produced in order to undertake field trials and evaluate the performance of these stations for Civil Defence use.

In general, high power stations and stations in cities which are to be evacuated will be closed down in an emergency and these transportable stations will be used to fill any gaps in coverage resulting from the closure of these stations.

Tests have been carried out in the Province of Ontario and have confirmed our original estimate of a fifty mile service area for the stations.

The transmitters are capable of being connected into a national program network, but where wire line circuits are not available facilities will be provided to enable the operators to pick up and rebroadcast programs from other stations.

Details of transmitter

A 1 K.W. A.M. transmitter capable of operating on any frequency in the band 550 - 1600 kc/s and be set to an accuracy within plus/minus 200 c/s.

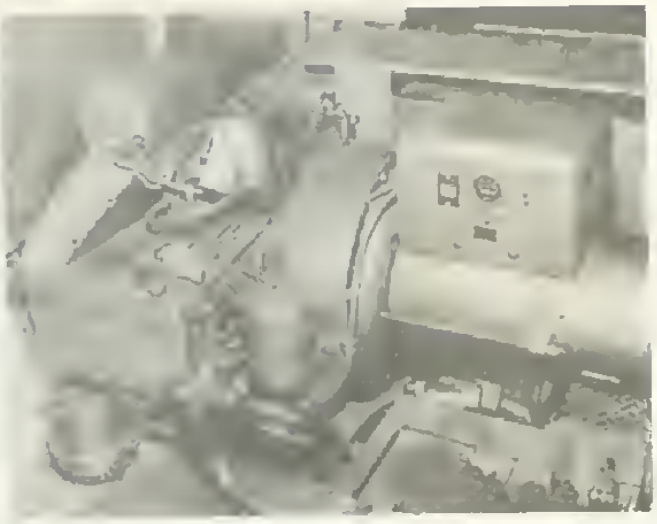
Representative performance measurements as follows:

Carrier frequency	=	1000 kc/s
R.F. load current	=	10 amps R.M.S.
R.F. load voltage	=	102 volts R.M.S.
Power = 102 x 10	=	1020 watts

Frequency	Distortion	Response	Noise
50 c/s	4.6%	-5.5 D.B.	-48 D.B.
100 "	3.8%	-2.0 D.B.	
400 "	3.6%	0. D.B.	
1,000 "	3.8%	+0.2 D.B.	
5,000 "	8.2%	-0.8 D.B.	
10,000 "	8.1%	-4.0 D.B.	

The transmitter and a 5 K.W. Diesel power supply unit are mounted on a 1-ton trailer. An antenna consisting of a 150-ft. vertical, collapsible mast in 10-ft. sections and a ground system of twelve radial 400-ft. wires (several sets are provided). Programme control is by an Ampex 601 tape recorder and console with necessary microphone, line inputs and controls. There is a truck with box-type body to serve as studio, transport personnel and tow the trailer. Interconnecting cables are provided so that the trailer will be near the base of the mast. The studio truck can be 100-ft. or more away.

5 Kw.
Diesel Generator



150 Ft. antenna erected

1 Kw. Transmitter Unit

Tape Recorder
and Control Console